SMARTRing® Service OC3

CLEC Information Package

Service Description

Self-healing Multi-nodal Alternate Route Topology Ring Service (SMARTRing® service) OC3 is a dedicated, digital network with the capacity to transmit 3 DS3's or 84 DS1's between multiple customer-designated locations and Company Central Offices, where facilities can be made available as determined by the Company. This service is provided utilizing a dedicated network of SONET (Synchronous Optical Network) OC3 fiber optic transmission equipment nodes configured in a self-healing ring architecture. These nodes are connected by dedicated fiber routed through local, alternate central office, and interoffice facilities, which allow for transmission of DS3 or DS1 services simultaneously over both a primary and protect path between the customer designated locations and Telephone Company Central Offices, and is specifically designed to survive in the event of a single catastrophic failure within the network (such as a cable cut). The system will monitor the quality of signals received over both the primary and alternate paths, and will take the best of the two signals; therefore, if a failure is detected within the network which blocks the signal received over one path, the signal being transmitted over the alternate path will be accepted, thereby ensuring the integrity of the network.

The SMARTRing® Service guarantee provides a credit equal to the monthly billing for the ring should a single failure of the Company's equipment result in a service outage of the entire system, and the system does not automatically self-heal around the point of failure within two and one half (2.5) seconds. In order to qualify for this credit, the customer must report the service interruption to the Company, and the trouble must be found in the Company equipment, based on information provided by the network surveillance system associated with the service. No more than one credit will apply for any given rate element for any given month, regardless of the number of interruptions occurring during that month.

The major service elements of the SMARTRing® architecture are the nodes, channels, and interfaces..

NODES

Node types are: Central Office and Customer premises

Central office nodes are located in telephone Company central offices.

Customer Nodes are located in Customer designated premisis other than central offices.

A ring must consist of at least three nodes - one Central Office Node located in a Telephone Company Central Office, one Customer Node located at the customer premises, and one other type node of the customer's choosing (central office or customer premises). Additional nodes may be any combination of Central Office or Customer Premises Nodes at the customer's discretion. The customer will choose where his Node locations will be placed, and based on that information, as well as customer requested routing information, Network will determine how facilities will be routed to connect those Node locations

CHANNELS

Channel types are local, alternate central office, internodal, and interoffice.

Local channels provide the communication path between Customer nodes and the serving wire center for the node location.

Alternate central office channels provide the communication path between customer nodes and a central office other than the serving wire center for the node location (provides an increased level of diversity).

Interoffice channels provide the communication path between directly connected central offices on the SMARTRing® whether or not a node is located in the central office.

The Internodal Channel provides for the communications path between two directly connected Customer Nodes located in the same serving wire center area, or in the same office park/campus environment or contiguous property, located in contiguous serving wire center areas.

INTERFACES

SMARTRing® OC3 provides the capability to transmit up to 3 DS3 or 84 DS1circuits. In order to enter and exit the ring interfaces must be ordered at the originating and terminating nodes.

Customers wishing to multiplex DS1 services in a Telephone Company Central office to connect to an OC3 SMARTRing® at the DS3 level must obtain a 28 DS1 Channel System and the appropriate number of DS1 Channel Interfaces in lieu of the DS3 Channel Interface.

Tariff Reference

SMARTRing® Service is available in all BellSouth service areas. The SMARTRing® Service Tariff is located in section B7 of each of the State Private Line Service Tariffs.

Installation Intervals

Normal Installation intervals	**NO**
Project Coordination Required	**YES**

Service Inquiry and Ordering Guidelines

Before a SMARTRing® Service Can be ordered a service inquiry for design must be submitted to determine availability and routing of fiber optic facilities. In addition, the information provided back to the initiator is required in order to develop an accurate price. This is because the channels are mileage sensitive in quarter mile increments. To place an order for SMARTRing® Service, the service inquiry for design must be resubmitted as a firm order request along with a Marketing Service request, and a signed contract (if applicable).

All of this documentation completion and submission will be performed by the CLEC Account Team.

Customer Education

There is no formal training for SMARTRing® Service. However, if appropriate, Customer education will be coordinated and/or administered through the Local Carrier Service Center (LCSC) or the appropriate Account Team.

BELLSOUTH

SYNCHRONET® SERVICE

SynchroNet® Service
CLEC Information Package

Service Description

SynchroNet service is a private line intraLATA nodal-based, digital data transmission service designed for customers who require highly reliable transmission of digitized information at moderate to high speeds over end-to-end digital facilities. SynchroNet is capable of simultaneous two-way transmission of synchronous digital signals at speeds of 2.4, 4.8, 9.6, 19.2, 56, and 64 Kbps. SynchroNet service circuits within a LATA are routed through a Node Central Office. The Node Central Office serves as the test, maintenance, and monitoring center and may provide multi-point capability. By using digital facilities and routing the circuits through Nodes, SynchroNet service is provisioned with an average performance objective of at least 99.5% error free seconds of transmission.

BellSouth's SynchroNet is similar to Digital Data Service (DDS) service which is often used by Customer Premises Equipment (CPE) manufacturers, Interexchange Carriers (IXCs), and customers as a generic name for DS0 level digital transmission service. SynchroNet is a registered Service Mark of BellSouth Corporation. Similar products offered by other companies carry different names.

SynchroNet service uses synchronous transmission. This means that signals are sent in a precisely controlled sequence at a fixed rate. This timing allows time division multiplexing to be used, therefore, transmitting data more efficiently. SynchroNet service is available as an intraLATA point-to-point, multi-point, or Secondary Channel Capability service. Multi-point service may not be available in all areas or at all speeds. SynchroNet service is not available at 64 Kbps with multi-point or Secondary Channel options.

Link capability allows the interconnection of SynchroNet to other network service offerings. SynchroNet may be linked with MegaLink Channel Service®, LightGate®, FlexServ®, and PulseLink® services.

Point-to-Point Service

Point-to-point service is a basic configuration for SynchroNet service. A full point-to-point circuit will consist of two digital local channels and any applicable digital interoffice channels. A local channel represents the facility between the Serving Wire Center Central Office to the customer

premises. The interoffice channel represents the link between the Serving Wire Center Central Office to the Node central office designated for that circuit.

Multi-Point Service

Multi-point service is applied whenever three or more digital local channels, digital interoffice channels, and/or channel equivalents are bridged. Multi-point service is only available at certain Node Central Offices. 64 Kbps service can not be configured in a multi-point arrangement. A bridging arrangement is required whenever three or more points are bridged in a Node; a bridging charge applies per SynchroNet local or interoffice channel bridged. A connection may be any combination of local channels, interoffice channels, or channel equivalents.

In order to provide multi-point service, special Multi-point Junction Unit (MJU) equipment is required at the Node. The MJU provides the means for splitting data signals into two to four branches for transmission over different paths to remote stations. Each MJU is dedicated to the service of a particular customer (or customer site) and has a "master" leg and up to four "slave" legs. The MJU broadcasts any signals received from the master leg to all other legs and will take any incoming signals from any slave leg and transmit them to the master leg.

Secondary Channel Capability

SynchroNet service also supports Secondary Channel Capability (SCC) which is a companion transmission capability that is provided over the same physical facility as the primary channel but at a lower bit rate. Terminal equipment required to support Secondary Channel Capability must be provided by the customer. SCC is a pathway which allows customer provided equipment to provide diagnostics, network management, alarm functions or a second low speed data path.

SCC is available for point-to-point or multi-point service speeds of 2.4, 4.8, 9.6, 19.2 and 56 Kbps. SCC is not available on 64 Kbps. A customer requesting SCC must deploy SCC option on all local channels of a circuit. The provisioning of a Secondary Channel to an existing primary channel requires disruption of the primary channel. Maintenance of the primary channel may disrupt the Secondary Channel.

Service Components

Digital Local Channels (DLC)

Digital Local Channels connect customers premises to their serving Central Office. The local channel rate is a flat rated charge that includes the facilities from the connection (termination) in the serving wire center to the customers premises. A minimum of two DLCs or equivalents is required to provide service with the exception of Link Connectability. When the customer has two locations on the same premises, the customer is charged for two local channels from the customers premises to the Node, and two Node termination charges. The Node and the serving wire center Central Office can be one and the same.

The physical connection is a 4 wire nonloaded loop from the customer's premises to the serving wire center or to a Digital Loop Carrier system Remote Terminal (DLC RT) site. The maximum local loop distance limitations for SynchroNet service deployment are determined by the transmit levels and receiver sensitivities of the loop's terminating equipment in both the customer's premises and the serving wire center or DLC RT, and by spectrum management requirements. Distance limitations vary by speed, cable gauge, and other factors. The following examples are the approximate distance limitations for basic SynchroNet service (without SCC) in an all 26 gauge loop, with the maximum allowable loop length:

- 2.4 Kbps - 7.9 miles (approximately)
- 4.8 Kbps - 6.1 miles (approximately)
- 9.6 Kbps - 4.5 miles (approximately)
- 19.2 Kbps - 3.0 miles (approximately)
- 56.0 Kbps - 2.7 miles (approximately)
- 64.0 Kbps - 2.4 miles approximately)

Digital Interoffice Channel

The Digital Interoffice Channel is the path(s) between the serving wire center Central Office(s) and the Node (when the Node is not the serving wire center). A flat rate per interoffice channel and a rate per mile (applied in bands) is applicable for each interoffice channel. The distance used for interoffice mileage is the distance from the serving wire center central office to the Node Central Office. When the serving wire center is the Node, no interoffice channel fixed or mileage charges will apply.

Digital Terminating Equipment

Digital Terminating Equipment is customer provided equipment to terminate SynchroNet at the customer's, end-user's, or other common carrier's premises. Combination DSUs/CSUs are required.

SynchroNet service architecture begins at the customer's premises with the CPE. The customers Data Terminal Equipment (DTE) interfaces with the network through a Channel Service Unit (CSU) which provides network protection, signal recovery, and test access functionality. The typical customer configuration also includes a Data Service Unit (DSU) which provides timing recovery, zero code suppression, and the DTE interface. The functions of the CSU and DSU are often combined into a unit called a CSU/DSU. The customer must provide his or her own CSU/DSU equipment.

The customer is required to furnish CPE to terminate the SynchroNet circuit. This CPE must provide both CSU and DSU functions. The CSU terminates the customer's channel from the serving end office and performs remote channel loopback tests, amplification, and signal shaping. The DSU interfaces between the customer's terminal equipment and their CSU. The CPE equipment can be a CSU and a DSU or a CSU/DSU combination.

The CSU/DSU is connected to the customer's CPE via one of two interfaces: (1) An RS-232C interface is used with 2.4, 4.8, 9.6, or 19.2 Kbps service and (2) A CCITT V.35 interface is used with 56 and 64 Kbps service.

Network Interface Jacks

Network Interface Jacks are used when appropriate.

Node Office

All SynchroNet circuits must be routed through one Central Office designated by the Company as a SynchroNet Node. The Node Office equipment must mirror the equipment in the end office. An important advance in the Node Office is the use of subrate Digital Cross Connects (DCS). The use of the subrate DCS can replace the use of Sub-Rate Multiplexer Units (SRMUs), D-Banks, or separate multiplexing equipment in the Node, as subrate DCS will do the multiplexing, thereby eliminating the need for an exact mirror image. The Node Central Office is the test, maintenance, and monitoring center. The Company designates which central offices within a LATA are SynchroNet Nodes.

Node Termination

A Node Channel Termination charge applies per Digital Local Channel or equivalent provided and activated on MegaLink Channel Service or LightGate.

Interoffice Mileage (Airline Mileage Between Central Offices)

Airline distance between BellSouth Central Office are developed using the methodology and Vertical and Horizontal (V&H) Coordinates contained in the National Exchange Carrier Association (NECA) Tariff FCC No. 4. Fractional miles are to rounded up to the next full mile. The methodology for the calculation of mileage can be found in Section B3.3 of the Private Line Service Tariff.

Tariff References/Price List References

SynchroNet Service is only available for intraLATA service where appropriate digital facilities are available as determined by BellSouth. Multi-point and/or Secondary Channel Capability may not be available in all SynchroNet locations due to availability of equipment. SynchroNet service is tariffed in all BellSouth states. The SynchroNet Service tariff is located in Section B7.2 of the state-specific Private Line Service Tariff.

All rate elements have monthly recurring charges. Some rate elements have non-recurring charges. There are differences in applicable charges among states. There is a minimum service period for SynchroNet.

Contract Rates

The rates provided under contract plans will not be increased by BellSouth until the contract period expires; rate decreases are passed along to customers. There is, however, a termination liability if the service is terminated or disconnected prior to the end of the contract. The termination liability charge is determined by multiplying the contracted monthly rate times the number of months in the contract plan, less the contracted monthly rate times the number of months the service has been established.

Installation Intervals

Normal Installation Intervals	**No**
Project Coordination Required	**Yes**

Service Inquiry and Ordering Guidelines

Information that will need to be provided:

- Customer name, address, telephone number
- Customer contact name, contact telephone number
- Independent company name (ICO - if any)
- Purchase order number
- Payment plan
- Type of order (new, change, disconnect)
- Customer's desired due date
- Line speed
- CKL Designations (1, 2, 3, etc.) and addresses, serving Central Offices, distances from the Central Offices, SynchroNet Node identification, interoffice mileage (if applicable)
- CKL1 is typically the master leg of a circuit
- Jack type (usually RJ48)
- Diagram of network circuit design

SynchroNet service requests may require the use of a Service Inquiry in the Complex Services Profile System (CSPS). This will be true whether the order is firm or not. If a non-firm SI is issued and the customer decides to buy the service, a follow-up, firm order SI will be required for certain engineering work groups.

Customer Education

There is no formal training for SynchroNet service. However, if appropriate, customer education and training will be coordinated and/or administered through the Local Carrier Service Center (LCSC) or the appropriate Account Team.

TOUCH-TONE

2/18/97

TOUCH-TONE
CLEC INFORMATIONAL PACKAGE

1. Service Description

A. Basic Service Feature - Touch-tone

B. Basic Service Capabilities - Touch-tone service is a signaling service that provides for the origination of telephone calls by sending Dual Tone Multifrequency Signals (DTMF). This service is furnished for use with individual central office lines. Touch-tone service accelerates dialing and call completion thereby increasing the convenience of making financial and informational transactions over the telephone. Touch-tone service is included with Basic Local Exchange services at no additional charge in FL, SC, and AL. Georgia customers may choose between a line with touch-tone or rotary dial service. In KY, MS, NC, TN, and LA touch-tone service is offered as an optional service.

2. Tariff References/Price List References

GSST Section A13.2 for all states.

3. Installation Intervals:

Normal Installation Intervals	Yes __x___	No _____
Project Coordination Required	Yes _____	No ___x___

4. Service Inquiry & Ordering Guidelines:

Orders for this service/product should be submitted to the LCSC via fax or Electronic Data Interchange (EDI) process.

5. Customer Education (CLEC & End USER)

None required for this service.

BELLSOUTH

TOUCHSTAR® SERVICES

TouchStar® Services

Call Block
Call Selector
Call Tracing
Call Return
Repeat Dialing
Preferred Call Forwarding

2/19/97

TouchStar® Services
CLEC INFORMATIONAL PACKAGE

1. Service Description

A. Basic Service Description - TouchStar® Services

B. Basic Service Capabilities - TouchStar services are optional network features, which are offered on a subscription basis or for some of the TouchStar features, on a per use basis. They are offered to meet residential customers' need for making their life easier and having more control over their telephone services.

C/D. Feature Interaction and How Does the Service Work

Call Block - allows a customer to block up to six unwanted numbers (via a screen list) from calling their number. By simply pressing *60 from their Touch-tone phone, a customer can add an unwanted number to their screen list manually or automatically if the number was from the last incoming call. Callers who are on the list hear an announcement that their call has been blocked and not accepted by the called party.

Call Selector - allows a customer to screen incoming calls via a distinctive ring. By pressing *61 on a Touch-tone phone or 1161 on a rotary phone, a customer can add up to six number to his screening list. If one of the numbers on the screening list calls, the customer will hear a distinctive ring (short, long, short) and will know it is someone on his screening list before answering the phone.

Call Tracing - enables a customer to initiate an automatic trace on the last call received by pressing *57 on a Touch-tone phone or 1157 from a rotary phone. The customer must then inform the Annoyance Call Center within the next business day of the date and time the call was traced. Although the customer will not receive the number of the call traced, the number will be passed to the Annoyance Call Center, who will then take appropriate action to resolve the annoying calls. Call Tracing is available on a subscription and per use basis.

Call Return - enables a customer to place a call to the last telephone number of the most recent call received. By pressing *69 on a Touch-tone phone or 1169 on a rotary phone, the customer can return a call regardless of whether they answered the phone or not. In other words, the customer can have a Call Waiting call beep in and not answer the phone and still be able to return the call using Call Return. Once activated, Call Return will voice back the number of the last incoming call (if available) and allow the customer to return the call if the call originated in the LATA. If the line is busy when the call is returned, the system will monitor the line every 45 seconds up to 30 minutes and ring the customer back via a distinctive ring when the called line is free. Call Return is available on a subscription and per use basis.

Repeat Dialing - allows a customer to automatically redial the last number which they attempted. This feature is very useful when the customer attempts to call a line that is busy. By pressing *66 on a Touch-tone phone or 1166 on a rotary phone, a customer can have the network monitor the busy line every 45 seconds up to 30 minutes and ring them back via a distinctive ring when the person's line whom they are calling is free. Once the customer picks up the phone, the system will ring the called party's line. Repeat Dialing is available on a subscription and per use basis.

Preferred Call Forwarding - enables a customer to transfer up to six telephone numbers on a screening list to another number. Only the calls that are on the screening list will be forwarded. Calls that are not on the list when the feature is activated will ring on the customer's line. To activate the feature, the customer must press *63 on a Touch-tone phone or 1163 on a rotary phone. If a customer wants to listen to, add or amend his screening list, he presses *63 or 1163 and follows the voice menu.

2. Tariff References/Price List References

GSST SECTION A13.

3. Installation Intervals

The intervals for service activation in the wholesale arena will duplicate the procedures and intervals used in the retail environment.

Normal Installation Intervals Yes__X___ No_____

Project Coordination Required Yes_____ No __X__

4. Service Inquiry & Ordering Guidelines

Orders for this service/product should be submitted to the LCSC via fax or Electronic Data Interchange (EDI) process.

5. Customer Education (CLEC & End User)

None required for this service.

BELLSOUTH

VISUAL DIRECTOR

Visual Director
CLEC Information Package

1. Service Description

A. Basic Service features

Visual Director (VDR) is a grandfathered pricing package which contains the network features supporting the ADSI protocol and that complements the operation of ADSI CPE, sometimes referred to as a screen phone. VDR services include:

- Call Waiting Deluxe (CWD)
- Caller ID (CID) Deluxe
- Call Forwarding Busy Line (CFBL)
- Call Forwarding Don't Answer (CFDA - Excludes Ring Control capability)
- Message Waiting Indication - Audible (MWIA-Excludes Visual capability)

B. Basic Service Capabilities and Restrictions

CWD requires Script Management capability to manage and download customized telephony scripts from a server into ADSI CPE/screen phones for storage in a service script slot. These scripts will allow the ADSI CPE/screen phone to display certain prompts and populate soft keys that will provide information and options based upon the call state and assist the caller in operating other network features. The Script Management capability is not included as part of CWD.

CWD is compatible only with a 1FR, 1FB, or on the last line of a Series Completion arrangement.

ADSI compatible CPE (Type 3) is required to achieve the full functionality of CWD service. Non-ADSI CPE (Type 2), such as a Call Waiting Display adjunct unit, may also be used, but will not provide the ability to handle the waiting call in all of the ways described in C below.

C. How Does This Service Work?

CWD - Without interrupting the current call, CWD and ADSI CPE provide the customer with the ability to handle the waiting call in several ways. The customer may:

1. Answer the call, dropping the first call
2. Answer the waiting call, placing the first call on hold
3. Direct the waiting caller to hold via a recorded announcement
4. Forward the waiting call to another location (e.g. a voice mailbox or telephone answering service

5. Conference the waiting call into the existing, stable call with the ability to subsequently drop either leg of the call.

CID Deluxe - (name and number) displays the listed name and number of the incoming call on CPE. When a CID Deluxe subscriber receives an incoming call, then end office launches a network query that is directed to one of serveral calling name database pairs distributed in the network. If the name is present, the response is sent to the end office so the name can be populated in the appropriate data field. The name and number are then delivered by the end office to the subscriber between the first and second ringing cycle. If the name is not present, an attempt will be made to populate the data field with the city and state of the incoming call. If the name is not available and the city/state cannot be determined, an indicator is set in the data field to specify that the name is not available. This will be displayed by CID equipment as "Unavailable" or "Out of area".

D. Feature Interaction

Anonymous Call Rejection (ACR): ACR will take precedence over CWD on incoming calls to a line with both ACR and CWD activated.

Calling Number Delivery Blocking (CNDB): If CNDB is used to restrict the calling name and/or number of the waiting call, then the privacy indicator will be displayed to the CWD subscriber.

Cancel Call Waiting (CCW): A CWD subscriber may temporarily override CWD service by activating CCW in two ways. Prior to originating a call, the subscriber can activate CCW. If the subscriber also has Three Way Calling (TWC), CCW can be activated during a call if he activates TWC and then enters the access code for CCW. This ability to override CWD is on a per-call basis. When CCW is activated, a CW alerting tone will not be provided and display information is not delivered to the CPE. The party calling the CWD subscriber will receive busy treatment.

Call Forwarding Busy Line (CFBL): When both CWD and CFBL are active on a customer's line, CWD shall take precedence over CFBL for any calls that are received while the customer is off-hook and engaged in a stable call. However, if the customer has a waited call, held call, or is controlling a CWD conferenced call, CFBL will take precedence over CWD for all incoming calls which cannot be waited.

Call Forwarding Don't Answer (CFDA): CFDA provides the forwarding destination for the "forward" default treatment and the FORWARD per-call option.

Call Forwarding Variable (CFV): CFV takes precedence over CWD when both are active on a customer's line.

Call Tracing (Customer Originated Trace) (CT): CT is activated on the number in the Incoming Memory Slot (IMS). The IMS is updated when a customer is alerted of a waiting call.

Call Return (CR): The switch will not apply CWD alerting indicating CR special ringing to a CWD customer's line when the customer is in a stable two-party call.

Call Waiting (CWT): CWD will override regular CWT so that CWD tones will be heard by the subscriber in lieu of regular CWT tones.

Multiline Hunt Group (MLHG): CWD may not be assigned to MLHG lines.

Preferred Call Forwarding (PCF): PCF takes precedence over CWD.

Remote Call Forwarding (RCF): CWD may not be assigned to lines with RCF active.

Repeat Dialing (RD): The switch will not apply CWD alerting indicating RD special ringing to a CWD customer's line when the customer is in a stable two-party call.

RingMaster (RM): If the switch reserves a call for the primary DN of a line that has CWD and RM, and that line is in a stable two-party call, CWD treatment will be provided and the switch will not provide distinctive alerting.

If a call is received by a switch for the secondary DN of a line that has CWD and RM, and that line is in a stable two-party call, the switch will provide distinctive alerting tones in place of Subscriber Alerting Signal (SAS).

Series Completion (SC): CWD has the same interactions with SC as exists for CWT in that CWD will only be applicable on the line which SC has determined to terminate the call.

Three Way Calling (TWC): When a CWD subscriber is controller of a three way call, CWD data and alerting will not be delivered. This is regardless of whether all parties are joined in conversation or if one of the parties has been placed on hold. This is consistent with CW functionality which does not allow notification to a TWC controller.

2. Tariff References/Price List References

   GSST SECTION A113

3. Installation Intervals

   Normal Installation Intervals YES_X__ NO___
   Project Coordination Required YES___ NO__X_